MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3 2022/2023

DCS5111 – COMPUTER CONCEPTS & APPLICATIONS

(DIT)

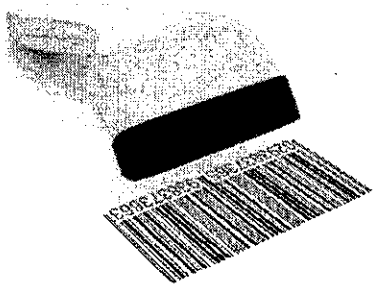
2 OCTOBER 2023
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **9** pages, excluding the cover page.
2. There are **2** sections in this booklet (Part A and Part B). Answer **ALL** questions.
3. For Part A: Multiple Choice Questions, choose and record your choice in pencil on the multiple choice answer sheet provided.
4. For Part B: Structured Questions, write all your answers in the answer booklet provided.

PART A: MULTIPLE CHOICE QUESTIONS [20 MARKS]

1. What is(are) the function(s) of this barcode scanner?



I. Enter data.
II. Manipulate data.
III. Display information.
IV. Store information.

A. I only.
B. I & IV only.
C. I, II & III only.
D. II & IV only.

2. All the documents will still stay in RAM if the computer is in _____.

A. sleep mode
B. off mode
C. hibernate
D. warm mode

3. Which of the steps may avoid computer battery drain?

I. Turn off keyboard backlights.
II. Change the computer to sleep mode if you are not using it.
III. Do not turn the brightness of the device to its maximum level.
IV. Uninstall application software that draws a lot of background power.

A. I, II & III only.
B. II, III &IV only.
C. I, II & IV only.
D. All of the above.

Continued...

4. Aleeya bought a pair of earing on an online shopping mall's Facebook live sale, and she paid using Touch 'n Go e-wallet through their company mobile application. What business model has been involved in this case?

I. Business-to-consumer (B2C)
II. Business-to-business (B2B)
III. Consumer-to-consumer (C2C)
IV. Social commerce
V. Mobile commerce

A. I, II & III only.
B. II, III &IV only.
C. I, III & V only.
D. I, IV & V only.

5. The URL "https://www.linkedin.com/learning/me/my-library" is an online learning platform which provides several online courses. The ".com" indicates the _____.

A. protocol
B. top-level domain
C. subdirectory
D. subdomain

6. An undergraduate student would like to find some information about research methodology in social science using any search engines, what keywords he should use?

A. research methodology in *
B. research methodology AND social science
C. "research methodology in social science"
D. research methodology OR social science

Continued...

7. The following factors need to be taken into consideration when choosing a website as an information resource EXCEPT _____.

   A. it is published by a reputable source.
   B. get permission from the web owner.
   C. the information on the site must be up to date.
   D. the information is matching to the user's need.

8. Which of the following is TRUE statement?

   A. Open-source software is a proprietary software.
   B. Local installation software needs to be upgraded frequently.
   C. Subscription software can be used for certain period only.
   D. Software as a Service can be installed locally on any personal computer.

9. Ms Rosemary works as a middleman for a company that supplies electronic chips to the company's customers. She needs software to keep track of the prices offered by different companies and find the cheapest supplier for the customers. At the same time, she will calculate the commission earn and selling price that needs to be paid by the customers. Please recommend software to Ms Rosemary.

   A. Word processing software
   B. Spreadsheet software
   C. Presentation software
   D. Note-taking software

10. The following are the benefits of software EXCEPT _____.

   A. improve efficiency
   B. perform a specific task
   C. more interactive
   D. very secure and riskless

Continued...

11. Which one of the following is not a general operation of the machine cycle in the central processing unit?

A. Fetch
B. Decode
C. Return
D. Store

12. When would you want to consider RAID 0 technology?

A. When you need the fastest solution for writing data.
B. If you think that SSDs are too expensive.
C. When you need an instant backup of your work.
D. When you want to have only one hard disk drive.

13. The CPU clock speed refers to the number of _____.

A. CPUs can have
B. RAMs
C. clocks it can have
D. number of cycles CPU executes per second

14. _____ is used to minimize memory-processor speed mismatch.

A. Flash memory
B. DVD
C. Cache memory
D. UVEPROM

Continued...

15. A good way to assess your CPU usage is to _____.

A. listen for the sound of a spinning hard disk drive
B. check the Performance tab of the Task Manager
C. check the number reported by the system defrag utility
D. feel the temperature of the CPU with your hand

16. Which of the following information can be configured on a VPN client so that it can access a VPN server?

I. IP address.
II. MAC address.
III. Domain name.
IV. Connection address.

A. I & II only.
B. I & III only.
C. I, III & IV only.
D. I, II & IV only.

17. Which of the following is true about the file organization?

A. In ordered file organization, searching is difficult but insertion is easy.
B. In ordered file organization, both searching and insertion are easy.
C. In unordered file organization, searching is difficult but insertion is easy.
D. In unordered file organization, insertion is difficult but searching is easy.

Continued...

18. Which of the following is an example of Bluetooth?

A. wide area network

B. Virtual private network

C. Local area network

D. Personal area network

19. What is the term for the data communication system within a building or campus?

A. MAN

B. LAN

C. PAN

D. WAN

20. For which type of connection is WPA security used?

A. Ethernet

B. Bluetooth

C. Wi-Fi

D. Infrared

Continued...

PART B: STRUCTURED QUESTIONS [20 MARKS]

QUESTION 1 [5 Marks]

a) Describe intellectual property. [1 mark]

b) List **TWO (2)** types of intellectual property. [2 marks]

c) List **TWO (2)** ways to protect your online reputation. [2 marks]

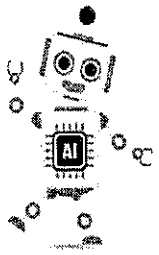
QUESTION 2 [5 Marks]

a) List **THREE (3)** types of computer viruses. [3 marks]

b) Describe **TWO (2)** signs of computers affected by viruses. [2 marks]

Continued...

QUESTION 3 [5 Marks]



To design a social humanoid interactive robot that can mimic human behavior and communicate with others, the programmers need to develop computer vision algorithm to process the inputs which capture from the sensors such as robot's eyes. The algorithms must enable the robot to simulate human conversation using natural language processing. To design a program, choose the related tasks which needs to be performed in each step of the Program Development Life Cycle (PDLC) from the box below.

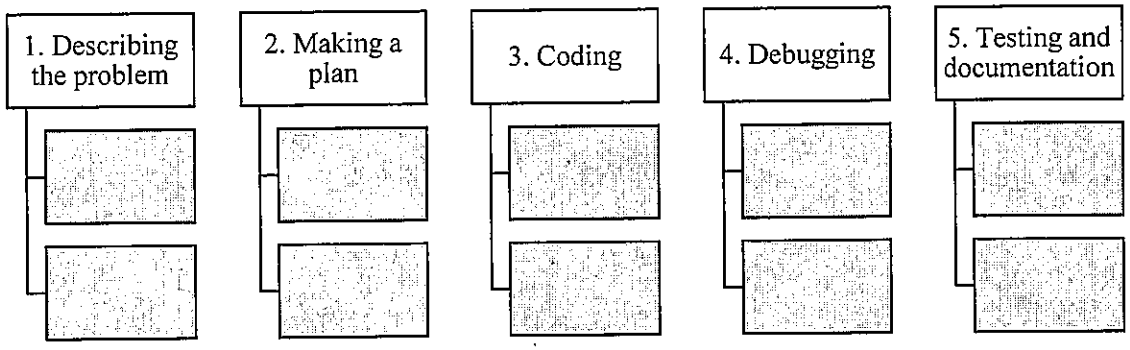


Figure 1: Program Development Life Cycle (PDLC)

- Address probable errors.
- Create executable programs.
- Repair the errors of programs.
- Draft the pseudocode or flowcharts.
- Prepare the manual for the programs.
- Translate the algorithms into CPU instructions.
- Run the program over and over to find the errors.
- Understand the goals and clear description of tasks.
- Decide to use top-down design or object-oriented analysis.
- Invite users to test on how the program was intended to be used.

Continued...

QUESTION 4 [5 Marks]

a) Figure 2 displays the details that need to be filled in when using the search engine in one of the travelling websites. [2 marks]

1.	**Enter a destination or property.**	Ayer Keroh
2.	**Check-in:** 20.8.2023	**Check-out:** 25.08.2023
3.	**How many people?**	(Eg: 2)
4.	**Bringing any kids below 12 years old?**	Yes/No

Figure 2

Identify the data type of each input field. Copy and write your answer in Table 1 below.

Table 1

	Data Type
1.	
2.	
3.	
4.	

b) The accommodation bookings of the users are recorded in Table 2.

Table 2

	Username	Check-in	Check-out	Hotel
1.	Mary St	11.07.2023	12.07.2023	WG Hotel
		24.09.2023	30.09.2023	Capsule Hotel ..... (b)(iii))
		02.11.2023	05.10.2023	First World Hotel
2.	Siti MK	02.11.2023	07.11.2023	MyGarden Homestay
3.	ChongHL	13.08.2023	19.08.2023	MyGarden Homestay
		13.10.2023	17.10.2023	First World Hotel

Answer the following questions based on Table 2.

(i) Identify the relationship between the username and check-in time. [1 mark]

(ii) Which key is suitable to be the primary key? Why? [1 mark]

(iii) What is the error found in Mary St's record which has been circled and labelled as (b)(iii)? Please justify your answer. [1 mark]

End of Page.